Applicant: Michael R. Green et al. Attorney's Docket No.: 07917-166US1 / UMMC 02-28

Serial No.: Not yet assigned

Filed : Herewith Page : 2 of 6

Amendments to the Specification:

Please insert the paper copy of the Sequence Listing filed herewith following the Drawings.

Please insert the following paragraph after the title:

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a National Stage of International Application No. PCT/US03/07323, filed March 7, 2003, which claims the benefit of priority from U.S. Provisional Application Serial No. 60/362,655, filed March 8, 2002.

Replace the paragraph beginning at page 5, line 23 with the following rewritten paragraph:

Fig. 8 is a representation of the nucleic acid sequence of MoMLV envelope protein (SEQ ID NO:4).

Replace the paragraph beginning at page 6, line 31 with the following rewritten paragraph:

Heterologous short peptide ligands suitable for use in the invention can also be identified using methods known in the art. Such methods include screening phage display in which a library of phage bearing a random selection of small peptides is selected for binding to the extracellular domain of a cell surface protein (i.e., a cell surface protein expressed on a host target cell). Nucleic acid sequences coding for such peptides are then cloned into wild-type envelope protein to produce chimeric envelope proteins. In another method using phage library, targeting to various organs can be achieved by injecting a phage display library into animals and identifying the peptides localized in each organ. This method has been successfully used to identify short peptides targeted to, e.g., kidney cells (CLPVASC, SEQ ID NO:3; CLPVASC, SEQ ID NO:4; and CGAREMC, SEQ ID NO:5) and to brain cells (CLSSRLDAC, SEQ ID

Applicant: Michael R. Green et al. Attorney's Docket No.: 07917-166US1 / UMMC 02-28

Serial No.: Not yet assigned

Filed : Herewith Page : 3 of 6

NO:6; WRCVLREGPAGGCAWFNRHRL; SEQ ID NO:7) (Pasqualini et al., 1996, Nature 380:364-366). Similarly, recombinant peptide libraries can also be screened for peptides that specifically bind to a protein that is expressed on a target host cell (Pasqualini *supra*; Wrighton et al., 1996, Science 273:458-464; Cwirla et al., 1997, Science 276:1696-1699; Arap et al., 1998, Science 279:377-380).

Replace the Table 1 beginning at page 17 with the following rewritten Table 1:

Table 1. Description of RGD viruses.

ENV#		sition of I ertion	Ligand			
	(A.A. Location)		# of Inserts	Deletion of Nucleotides in Env.		
RGD ₁₃ [C A	AA-GR	GDSP-	ΓRC] <u>(S</u>	EQ ID NO:8)		
1	1		1X			
2		1		2X		
3		1		4X		
4	38		1X			
5	38		3X			
6		38		1X	5990-6082	
7	68		1X			
8	68		2X			
9		68		1X	6082-6191	
10	120		1X			
11	120	120	237	2X	6238-6281	
12	120		3X			
13	185		1X			
14	230		1X			
15 16	230 235		2X			
17	235 235		1X			
18	235 310		4X 1X			
19	310		2X			
20	310		2X 1X			
21	321		2X			
22	382		1X			
23	382		2X			
24	382		3X			
25	388		1X			
26	200	388	IA	2X		
20		300		4۸		

1	1	1X	
2	38	1X	
3	38	1 X	5990-6082
4	68	1X	
5	68	1X	6082-6191

Applicant: Michael R. Green et al. Attorney's Docket No.: 07917-166US1 / UMMC 02-28

Serial No.: Not yet assigned

Filed : Herewith Page : 4 of 6

6	120	1X	
R	120	1X	6238-6281
8	185	1X	
9	230	1X	
10	235	1X	
11	310	1 X	
12	321	1X	
13	382	1X	
14	388	1X	•
15	1,68	1X,1X	
16	1 230	1X 1X	

RGE₂₁[CAAA- QGATFALRGENPQG-TRC](SEQ ID NO:25)

1	1	1X	
2	38	1X	5990-6082
3	68	1 X	
4	68	1X	6082-1916
5	230	1X	

Replace the Table 2 beginning at page 24 with the following rewritten Table 2:

Table 2. Description of GRP and HRG viruses

ENV #		osition of gand Insertion
		A.A. Deletion of
		ocation) Nucleotides in Envelope
	GRP CAAA	- EQRLGNQWAVGHLM - TRC (SEQ ID NO:18)
GRP-1	1	
GRP-2	38	
GRP-3	38	5990-6082
GRP-4	68	
GRP-5	68	6082-1916
GRP-6	120	
GRP-7	120	6238-6281
GRP-8	185	
GRP-9	230	
GRP-10	235	
GRP-11	310	
GRP-12	321	
GRP-13	382	
GRP-14	388	

Del. 3 A.A.

FM D PSRY L

M

HRG CAAA – SHLVKCAEKEKTFCVNGGECYRVKTYGYLMCKCPNEFTGDRCQNYVIAS – TRC (SEQ ID NO:26)

Attorney's Docket No.: 07917-166US1 / UMMC 02-28

Applicant: Michael R. Green et al.
Serial No.: Not yet assigned
Filed: Herewith
Page: 5 of 6

HRG-1	1		
HRG-2	38		
HRG-3	38	5990-6082	
HRG-4	68		
HRG-5	68	6082-1916	
HRG-6	120		
HRG-7	185		
HRG-8	230		
HRG-9	235		